ABSTRACT OF THE DISCLOSURE

An approach to solving combinational constraints, comprising compile and generate phases, is presented.

The compile phase constructs successive sets of constraints, each with a
5   solution generator, according to blocks of a partition of the constraints' random variables. Interleaving conjunction of the constraints, with existential quantification of the constraints, is attempted.

The generate phase uses a reverse-order, block-by-block, process for solving constraints, where variables of each solution generator processed have been
10   predetermined, by the processing of earlier blocks, except for the random variables of the current block.

The present invention can be used in conjunction with image computation.

Successive sets of reachable states of an FSM at successive time steps can be determined by successive applications of the compile phase, with each set of solution
15   generators being saved.

The sets of solution generators permit a backward sequence of states, from an error state back to a start state, to be determined.

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